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46. (New) A synthetic gene encoding a protein normally expressed in an eukaryotic cell wherein at least one rarely-used or less preferred codon in a natural gene encoding said protein has been replaced by a preferred codon encoding the same amino acid, said synthetic gene expressing said protein at a level which is higher than that expressed by said natural gene in an in vitro mammalian cell culture system under identical conditions.

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47. (New) An expression vector comprising the synthetic gene of claim 46.

48. (New) A mammalian cell comprising the synthetic gene of claim 47.

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49. (New) A method for preparing a synthetic gene encoding a protein normally expressed by mammalian cells, comprising identifying rarely-used and less-preferred codons in the natural gene encoding said protein and replacing one or more of said rarely-used or less-preferred codons with a preferred codon encoding the same amino acid as the replaced codon, so that a synthetic gene is prepared.

REMARKS

1. The Pending Claims

Claims 3-5, 21, 23-24, 30 and 34-45 were canceled in the application fee transmittal paper filed together herewith, leaving original claims 1-2, 6-20, 22, 25-29, and 31-33 pending in the application. New claims 46-49 are being added. After entry of the amendment, claims 1-2, 6-20, 22, 25-29, 31-33 and 46-49 will be pending.

2. Amendments

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version with markings to show changes made."